

PATENT COOPERATION TREATY

INTERNATIONAL APPLICATION NO. PCT/CA92/00123

NOTIFICATION TO THE DESIGNATED
OFFICE OF RECEIPT OF
RECORD COPY
issued under PCT Rule 24.2(a)

To:

United States Patent
and Trademark Office
Washington, D.C.

APPLICANT'S OR AGENT'S
FILE REFERENCE:

82402-303

in its capacity as a designated Office

DATE OF MAILING OF
THIS NOTIFICATION:
31 March 1992 (31.03.92)

From:

The International Bureau of WIPO
1211 Geneva 20
Switzerland

NAME(S) OF APPLICANT(S):

DOLYNCHUK, Kenneth, Nicholas et al.

INTERNATIONAL FILING DATE:

23 March 1992 (23.03.92)

PRIORITY DATE(S) CLAIMED:

none

DATE OF RECEIPT OF RECORD COPY BY INTERNATIONAL BUREAU:

31 March 1992 (31.03.92)

B. Largo
(Authorized Officer)

PATENT COOPERATION TREATY



NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
Washington, D.C.

in its capacity as elected Office

Date of mailing: 27 October 1993 (27.10.93)	
International application No.: PCT/CA92/00123	Applicant's or agent's file reference: 82402-303
International filing date: 23 March 1992 (23.03.92)	Priority date:
Applicant: DOLYNCHUK, Kenneth, Nicholas et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

11 October 1993 (11.10.93)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

B. Morariu

Telephone No.: (41-22) 730.91.11

PATENT COOPERATION TREATY



PCT

NOTIFICATION CONCERNING
DOCUMENT TRANSMITTED

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
Washington, D.C.

in its capacity as elected Office

Date of mailing:

26 April 1994 (26.04.94)

International application No.:

PCT/CA92/00123

International filing date:

23 March 1992 (23.03.92)

Applicant:

UNIVERSITY OF MANITOBA et al

The International Bureau transmits herewith the following documents and number thereof:

 copy of the international preliminary examination report (Article 36(3)(a))The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorised officer:

B. Fitzgerald

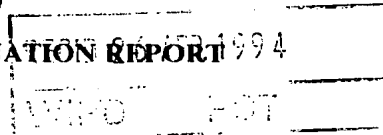
Telephone No.: (41-22) 730.91.11

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 82402-303	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CA 92/ 00123	International filing date (<i>day/month/year</i>) 23/03/1992	Priority date (<i>day/month/year</i>) 23/03/1992
International Patent Classification (IPC) or national classification and IPC A61K31/13		
Applicant UNIVERSITY OF MANITOBA et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This **REPORT** consists of a total of 4 sheets.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings amended during international preliminary examination and/or containing rectifications made before this Authority.

These annexes consists of a total of _____ sheets.

3. This report contains indications and corresponding pages relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 11/10/1993	Date of completion of this report 21.04.94
Name and mailing address of the IPEA/ European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer A. Schindler

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Intern. application No.

PCT/CA92/00123

I. Basis of the report

1. This report has been drawn up on the basis of:

☒ the international application as originally filed.

☒ the description, pages _____, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, No. _____, as originally filed,
No. _____, as amended under Article 19,
No. _____, filed with the demand,
No. _____, filed with the letter of _____,
No. _____, filed with the letter of _____.

☒ the drawings, sheets/fig _____, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of: pages: _____
sheets of drawings/figures No.: _____.

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed:

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement.

1. STATEMENT

Novelty (N)	Claims 1-7 (no) _____	YES
	Claims _____	NO
Inventive Step (IS)	Claims _____	YES
	Claims 1-7 _____	NO
Industrial Applicability (IA)	Claims _____	YES
	Claims 1-7 _____	NO

2. CITATIONS AND EXPLANATIONS

- 1). WO-A- 91/10427, discloses transglutaminase inhibitor preparations including monodansyl cadaverine, dansyl-cadaverine, putrescine, histamine, methyl amine, and cystamine used for therapy of filaria infections. This disclosure clearly anticipates the subject-matter of the present claims 1-7 (Art. 33(2) PCT).
- 2). For the assessment of the presently worded claims 8-15 on the question whether they are industrially applicable, no unified criteria exist in the PCT. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognise as industrially applicable claims to the use of a compound in a medical treatment, but will allow, claims to a compound for a first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- 1). With regard to the pages of the specification, it is submitted that with Applicant's response dated 23.6.92 only the drawings figures 1-8 and the amended pages 2, 4 and 5 of the specification had been filed. Page 1 (filed the 8th. of april 92) is in this context not consistent with page 2 (filed the 23rd. of june 92). The same applies to page 5 bridging with page 6.

RECORD COPY

INTERNATIONAL APPLICATION UNDER THE PATENT COOPERATION TREATY REQUEST

THE UNDERSIGNED REQUESTS THAT THE PRESENT
INTERNATIONAL APPLICATION BE PROCESSED
ACCORDING TO THE PATENT COOPERATION TREATY

(The following is to be filled in by the receiving Office)

INTERNATIONAL
APPLICATION NO. **PCT / CA 92 / 00123**

INTERNATIONAL
FILING DATE: **23 MARCH 1992**
(23.03.92)

(Stamp)

RO/CA

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(indicated by applicant if desired)

82402-303

Box No. I TITLE OF INVENTION

TREATMENT OF SCAR TISSUE

Box No. II APPLICANT (WHETHER OR NOT ALSO INVENTOR); DESIGNATED STATES FOR WHICH HE/SHE/IT IS APPLICANT. Use this box for indicating the applicant or, if there are several applicants, one of them. If more than one person (includes, where applicable, a legal entity) is involved, continue in Box No. III.

The person identified in this box is (mark one check-box only):

☐ applicant and
inventor*

☒ applicant
only

Name and address: ** University of Manitoba
105 Administration Building
Winnipeg Manitoba
Canada
R3T 2N2

Telephone number (including area code):

Telegraphic address:

Teleprinter address:

State of nationality: CA

State of residence: *CA

The person identified in this box is *applicant* for the purposes of (mark one check-box only):

☐ all designated
States

☒ all designated States except
the United States of America

☐ the United States
of America only

☐ the States indicated
in the "Supplemental Box"

Box No. III FURTHER APPLICANTS, IF ANY; (FURTHER) INVENTORS, IF ANY; DESIGNATED STATES FOR WHICH THEY ARE APPLICANTS (IF APPLICABLE). A separate sub-box has to be filled in in respect of each person (includes, where applicable, a legal entity). If the following two sub-boxes are insufficient, continue in the "Supplemental Box," (giving there for each additional person the same indications as those requested in the following two sub-boxes) or by using a "continuation sheet."

The person identified in this sub-box is (mark one check-box only):

☒ applicant and
inventor*

☐ applicant
only

☐ inventor
only*

Name and address: ** DOLYNCHUK, Kenneth Nicholas
University of Manitoba
Faculty of Medicine
770 Bannatyne Avenue
Winnipeg Manitoba
Canada R3E 0W3

If the person identified in this sub-box is *applicant* (or *applicant and inventor*), indicate also:

State of nationality: CA

State of residence: * CA

and whether that person is *applicant* for the purposes of (mark one check-box only):

☐ all designated
States

☐ all designated States except
the United States of America

☒ the United States
of America only

☐ the States indicated
in the "Supplemental Box"

The person identified in this sub-box is (mark one check-box only):

☒ applicant and
inventor*

☐ applicant
only

☐ inventor
only*

Name and address: ** BOWNESS, John Michael
University of Manitoba
Faculty of Medicine
770 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0W3

If the person identified in this sub-box is *applicant* (or *applicant and inventor*), indicate also:

State of nationality: CA

State of residence: * CA

and whether that person is *applicant* for the purposes of (mark one check-box only):

☐ all designated
States

☐ all designated States except
the United States of America

☒ the United States
of America only

☐ the States indicated
in the "Supplemental Box"

* If the person indicated as "applicant and inventor" or as "inventor only" is not an *inventor* for the purposes of all the designated States, give the necessary indications in the "Supplemental Box."

** Indicate the name of a natural person by giving his/her family name first followed by the given name(s). Indicate the name of a legal entity by its full official designation. In the address, include both the postal code (if any) and the State (name).

*** If residence is not indicated, it will be assumed that the State of residence is the same as the State indicated in the address.

Box No. IV AGENT (IF ANY) OR COMMON REPRESENTATIVE (IF ANY); ADDRESS FOR NOTIFICATIONS (IN CERTAIN CASES). A common representative may be appointed only if there are several applicants and if no agent is or has been appointed; the common representative must be one of the applicants.
The following person (includes, where applicable, a legal entity) is hereby/has been appointed as agent or common representative to act on behalf of the applicant(s) before the competent International Authorities:
Name and address, including postal code and country:

If the space below is used instead for an address for notifications, mark here: ☐

Ade & Company
1700-360 Main Street
Winnipeg, Manitoba
Canada R3C 3Z3

Telephone number (including area code):

Telegraphic address:

Teleprinter address:

Box No. V DESIGNATION OF GROUPS OF STATES OR STATES⁽¹⁾; CHOICE OF CERTAIN KINDS OF PROTECTION OR TREATMENT. The following designations are hereby made (please mark the applicable check-boxes):

Regional Patent

☒ **EP European Patent⁽²⁾:** AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, DE Germany, DK Denmark, ES Spain, FR France, GB United Kingdom, GR Greece, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT

☒ **OA OAPI Patent:** Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Gabon, Guinea, Mali, Mauritania, Senegal, Togo, and any other State which is a Contracting State of OAPI and of the PCT; if other OAPI title desired, specify on dotted line⁽³⁾:

National Patent (if other kind of protection or treatment desired, specify on dotted line⁽³⁾)

☐ AT Austria⁽³⁾
☒ AU Australia⁽³⁾
☒ BB Barbados
☒ BG Bulgaria⁽³⁾
☒ BR Brazil⁽³⁾
☒ CA Canada
☐ CH and LI Switzerland and Liechtenstein
☒ CS Czechoslovakia
☐ DE Germany⁽³⁾
☐ DK Denmark
☐ ES Spain⁽³⁾
☒ FI Finland
☐ GB United Kingdom
☒ HU Hungary
☒ JP Japan⁽³⁾
☒ KP Democratic People's Republic of Korea⁽³⁾

☒ KR Republic of Korea⁽³⁾
☒ LK Sri Lanka
☐ LU Luxembourg⁽³⁾
☒ MG Madagascar
☒ MN Mongolia⁽³⁾
☒ MW Malawi⁽³⁾
☐ NL Netherlands
☒ NO Norway
☒ PL Poland⁽³⁾
☒ RO Romania
☒ SD Sudan
☐ SE Sweden
☒ ~~SU Soviet Union~~ ^{RU} RUSSIAN FEDERATION
☒ US United States of America⁽³⁾

Space reserved for designating States (for the purposes of a national patent) which have become party to the PCT after the issuance of this sheet:

(1) The applicant's choice of the order of designations may be indicated by marking the check-boxes with sequential arabic numerals (see also the "Notes to Box No. V").
(2) The selection of particular States for a European patent can be made upon entering the national (regional) phase before the European Patent Office (see also the "Notes to Box No. V").
(3) If another kind of protection or a title of addition or, in the United States of America, treatment as a continuation or a continuation-in-part is desired, specify according to the instructions given in the "Notes to Box No. V."

Box No. VI PRIORITY CLAIM (IF ANY). The priority of the following earlier application(s) is hereby claimed:

Country (country in which it was filed if national application; one of the countries for which it was filed if regional or international application)	Filing Date (day, month, year)	Application No.	Office of filing (fill in only if the earlier application is an international application or a regional application)
(1)			
(2)			
(3)			

(Letter codes may be used to indicate country and/or Office of filing)

When the earlier application was filed with the Office which, for the purposes of the present international application, is the receiving Office, the applicant may, *against payment of the required fee*, ask the following:
☐ the receiving Office is hereby requested to prepare and transmit to the International Bureau a certified copy of the above-mentioned earlier application/of the earlier applications identified above by the numbers (insert the applicable numbers)

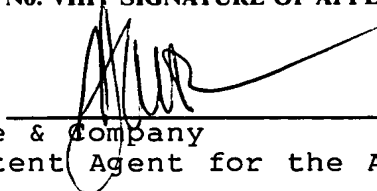
Box No. VII EARLIER SEARCH (IF ANY). Fill in where a search (international, international-type or other) by the International Searching Authority has already been requested (or completed) and the said Authority is now requested to base the international search, to the extent possible, on the results of the said earlier search. Identify such search or request either by reference to the relevant application (or the translation thereof) or by reference to the search request.

International application number or number and country (or regional Office) of other application:

International/regional/national filing date:

Date of request for search:

Number (if available) given to search request:

Box No. VIII SIGNATURE OF APPLICANT(S) OR AGENT

 Ade & Company
 Patent Agent for the Applicant

If the present Request form is signed on behalf of any applicant by an agent, a separate power of attorney appointing the agent and signed by the applicant is required. If in such case it is desired to make use of a general power of attorney (deposited with the receiving Office), a copy thereof must be attached to this form.

Box No. IX CHECK LIST (To be filled in by the Applicant)

This international application contains the following number of sheets:

- | | | |
|----------------|-----------|---------------|
| 1. request | 3 | sheets |
| 2. description | 6 | sheets |
| 3. claims | 2 | sheets |
| 4. abstract | 1 | sheets |
| 5. drawings | 9 | sheets |
| Total | 21 | sheets |

Figure number of the drawings (if any) is suggested to accompany the abstract for publication.

This international application as filed is accompanied by the items marked below:

- ☐ separate signed power of attorney
- ☐ copy of general power of attorney
- ☐ priority document(s) (see Box No. VI)
- ☐ receipt of the fees paid or revenue stamps
- ☐ cheque for the payment of fees
- ☐ request to charge deposit account
- ☐ other document (specify)

(The following is to be filled in by the receiving Office)

- Date of actual receipt of the purported international application: 23 MARCH 1992 (23.03.92)
- Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:
- Date of timely receipt of the required corrections under Article 11 of the PCT:
- Drawings ☒ Received ☐ No Drawings

(The following is to be filled in by the International Bureau)

Date of receipt of the record copy:

31 MARCH 1992(31.03.92)



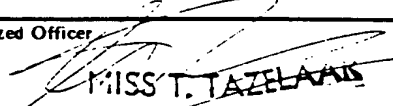
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5 : A61K 31/13, 31/135, 31/275	A1	(11) International Publication Number: WO 93/18760 (43) International Publication Date: 30 September 1993 (30.09.93)
(21) International Application Number: PCT/CA92/00123 (22) International Filing Date: 23 March 1992 (23.03.92) (71) Applicant (for all designated States except US): UNIVERSITY OF MANITOBA [CA/CA]; 105 Administration Building, Winnipeg, Manitoba R3T 2N2 (CA). (72) Inventors; and (75) Inventors/Applicants (for US only) : DOLYNCHUK, Kenneth, Nicholas [CA/CA]; BOWNESS, John, Michael [CA/CA]; University of Manitoba, Faculty of Medicine, 770 Bannatyne Avenue, Winnipeg, Manitoba R3E 0W3 (CA). (74) Agent: ADE & COMPANY; 1700-360 Main Street, Winnipeg, Manitoba R3C 3Z3 (CA).		(81) Designated States: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD, UA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: USE OF TRANSGLUTAMINASE INHIBITOR FOR THE TREATMENT OF SCAR TISSUE (57) Abstract The invention relates to the therapeutic treatment of hypertrophic scar tissue within a composition comprising a non-toxic transglutaminase inhibitor, such as putrescine, or a pharmaceutically acceptable acid addition salt thereof, and a pharmaceutically acceptable carrier or diluent. A successful method for treating hypertrophic scar tissue with such compositions, is also disclosed.		

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 92/00123

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC Int.Cl.5 B 01 K 31/13 A 61 K 31/135 A 61 K 31/275		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.Cl.5	A 61 K	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹		
Category ¹⁰	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	US,A,4485088 (CHVAPIL) 27 November 1984, see abstract ---	1,2,8-11
X	US,A,4507321 (RAISFELD et al.) 26 March 1985, see abstract; examples; columns 4-9; column 2, line 33 - column 4, line 58 ---	1-7
X	US,A,4997854 (KAGAN) 5 March 1991, see abstract; column 12, line 40 - column 13, line 45; claims 1-4 ---	1-5,8-13
X	WO,A,9110427 (UNIV. OF TEXAS) 25 July 1991, see abstract; page 9, lines 8-18; page 14, lines 18-26 --- -/-	1-6
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>¹⁰ Special categories of cited documents :</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p> </div> </div>		
IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
27-05-1992	26 JUN 1992	
International Searching Authority	Signature of Authorized Officer	
EUROPEAN PATENT OFFICE	 MISS T. TAZELAAR	

III. DOCUMENTS CONSIDERED TO BE RELEVANT

(CONTINUED FROM THE SECOND SHEET)

Category *	Citation of document, with indication, where appropriate, of the relevant pages	Relevant to Claim No.
X	Annals of Surgery, vol. 193, no. 5, May 1981, E.E. PEACOCK: "Pharmacologic control of surface scarring in human beings", pages 592-597, see abstract -----	1,2,8- 11

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

V. ☒ OBSERVATION WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE ¹

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claim numbers
Authority, namely: because they relate to subject matter not required to be searched by this
Remark: Although claims 8-15 are directed to a method of treatment of the human/animal body the search has been carried out and based on the alleged effects of the compounds/compositions.
2. ☐ Claim numbers because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim numbers because they are dependent claims and are not drafted in accordance with the second and third sentences of PCT Rule 6.4(a).

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING ²

This international Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application
2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:
3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:
4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the international Searching Authority did not invite payment of any additional fee

Remark on Protest

- ☐ The additional search fees were accompanied by applicant's protest.
☐ No protest accompanied the payment of additional search fees

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

CA 9200123
SA 57517




This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 18/06/92
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 4485088	27-11-84	None	
US-A- 4507321	26-03-85	None	
US-A- 4997854	05-03-91	None	
WO-A- 9110427	25-07-91	AU-A- 7478991	05-08-91

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 92/00123

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶ According to International Patent Classification (IPC) or to both National Classification and IPC: Int.Cl.5 A 61 K 31/13 A 61 K 31/135 A 61 K 31/275																	
II. FIELDS SEARCHED <div style="text-align: center; border-top: 1px solid black; border-bottom: 1px solid black; margin: 5px 0;">Minimum Documentation Searched⁷</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%; border: 1px solid black; padding: 5px;">Classification System</th> <th style="border: 1px solid black; padding: 5px;">Classification Symbols</th> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Int.Cl.5</td> <td style="border: 1px solid black; padding: 5px;">A 61 K</td> </tr> </table> <div style="text-align: center; border-top: 1px solid black; border-bottom: 1px solid black; margin: 5px 0;">Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched⁸</div>			Classification System	Classification Symbols	Int.Cl.5	A 61 K											
Classification System	Classification Symbols																
Int.Cl.5	A 61 K																
III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%; padding: 5px;">Category ^o</th> <th style="width: 70%; padding: 5px;">Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²</th> <th style="width: 20%; padding: 5px;">Relevant to Claim No.¹³</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; vertical-align: top; padding: 5px;">X</td> <td style="padding: 5px;">US,A,4485088 (CHVAPIL) 27 November 1984, see abstract ---</td> <td style="text-align: center; vertical-align: top; padding: 5px;">1,2,8-11</td> </tr> <tr> <td style="text-align: center; vertical-align: top; padding: 5px;">X</td> <td style="padding: 5px;">US,A,4507321 (RAISFELD et al.) 26 March 1985, see abstract; examples; columns 4-9; column 2, line 33 - column 4, line 58 ---</td> <td style="text-align: center; vertical-align: top; padding: 5px;">1-7</td> </tr> <tr> <td style="text-align: center; vertical-align: top; padding: 5px;">X</td> <td style="padding: 5px;">US,A,4997854 (KAGAN) 5 March 1991, see abstract; column 12, line 40 - column 13, line 45; claims 1-4 ---</td> <td style="text-align: center; vertical-align: top; padding: 5px;">1-5,8-13</td> </tr> <tr> <td style="text-align: center; vertical-align: top; padding: 5px;">X</td> <td style="padding: 5px;">WO,A,9110427 (UNIV. OF TEXAS) 25 July 1991, see abstract; page 9, lines 8-18; page 14, lines 18-26 --- -/-</td> <td style="text-align: center; vertical-align: top; padding: 5px;">1-6</td> </tr> </tbody> </table>			Category ^o	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³	X	US,A,4485088 (CHVAPIL) 27 November 1984, see abstract ---	1,2,8-11	X	US,A,4507321 (RAISFELD et al.) 26 March 1985, see abstract; examples; columns 4-9; column 2, line 33 - column 4, line 58 ---	1-7	X	US,A,4997854 (KAGAN) 5 March 1991, see abstract; column 12, line 40 - column 13, line 45; claims 1-4 ---	1-5,8-13	X	WO,A,9110427 (UNIV. OF TEXAS) 25 July 1991, see abstract; page 9, lines 8-18; page 14, lines 18-26 --- -/-	1-6
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<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>^o Special categories of cited documents : ¹⁰</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p> </div> </div>																	
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III. DOCUMENTS CONSIDERED TO BE RELEVANT

(CONTINUED FROM THE SECOND SHEET)

Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	Annals of Surgery, vol. 193, no. 5, May 1981, E.E. PEACOCK: "Pharmacologic control of surface scarring in human beings", pages 592-597, see abstract -----	1,2,8- 11

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

V. ☒ OBSERVATION WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE ¹

This International search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claim numbers because they relate to subject matter not required to be searched by this Authority, namely:
 Remark: Although claims 8-15 are directed to a method of treatment of the human/animal body the search has been carried out and based on the alleged effects of the compounds/compositions.
2. ☐ Claim numbers because they relate to parts of the International application that do not comply with the prescribed requirements to such an extent that no meaningful International search can be carried out, specifically:
3. ☐ Claim numbers because they are dependent claims and are not drafted in accordance with the second and third sentences of PCT Rule 6.4(a).

VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING ²

This International Searching Authority found multiple inventions in this International application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International search report covers all searchable claims of the International application
2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the International application for which fees were paid, specifically claims:
3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:
4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

- ☐ The additional search fees were accompanied by applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

ANNEX 2 THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO.

CA 9200123

SA 57517

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on 18/06/92. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 4485088	27-11-84	None	
US-A- 4507321	26-03-85	None	
US-A- 4997854	05-03-91	None	
WO-A- 9110427	25-07-91	AU-A- 7478991	05-08-91

PATENT COOPERATION TREATY

RECEIVED
PCTFrom the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

APR 28 1994

To:

ADE & COMPANY
1700-360 Main Street
WINNIPEG, MANITOBA R3C 3Z3
CANADA

NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year)

21.04.94

Applicant's or agent's file reference
82402-303

IMPORTANT NOTIFICATION

International application No.

PCT/CA 92/00123

International filing date (day/month/year)

23/03/1992

Priority date (day/month/year)

23/03/1992

Applicant

UNIVERSITY OF MANITOBA et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0, Tx: 523656 epmu d
Fax: (+49-89) 2399-4465

Authorized officer

S. Jacobus Prues

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 82402-303	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CA 92/ 00123	International filing date (<i>day/month/year</i>) 23/03/1992	Priority date (<i>day/month/year</i>) 23/03/1992
International Patent Classification (IPC) or national classification and IPC <p style="text-align: center;">A61K31/13</p>		
Applicant UNIVERSITY OF MANITOBA et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings amended during international preliminary examination and/or containing rectifications made before this Authority.

These annexes consists of a total of _____ sheets.

3. This report contains indications and corresponding pages relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 11/10/1993	Date of completion of this report 2 1. 04. 94
Name and mailing address of the IPEA/ <div style="display: flex; align-items: center;"> <div> European Patent Office D-80298 Munich Tel. (+49-89) 2399-0, Tx: 523656 epnu d Fax: (+49-89) 2399-4465 </div> </div>	Authorized officer <div style="text-align: center;"> A. Stehner </div>

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Intern. application No.

PCT/CA92/00123

I. Basis of the report

1. This report has been drawn up on the basis of:

☐ the international application as originally filed.

☒ the description, pages _____, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, No. _____, as originally filed,
No. _____, as amended under Article 19,
No. _____, filed with the demand,
No. _____, filed with the letter of _____,
No. _____, filed with the letter of _____.

☒ the drawings, sheets/fig _____, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of: pages: _____
sheets of drawings/figures No.: _____.

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed:

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Intern. application No.

PCT/CA92/00123

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims 1-7 (no) _____	YES
	Claims _____	NO
Inventive Step (IS)	Claims _____	YES
	Claims <u>1-7</u>	NO
Industrial Applicability (IA)	Claims _____	YES
	Claims <u>1-7</u>	NO

2. CITATIONS AND EXPLANATIONS

- 1). WO-A- 91/10427, discloses transglutaminase inhibitor preparations including monodansyl cadaverine, dansyl-cadaverine, putrescine, histamine, methyl amine, and cystamine used for therapy of filaria infections. This disclosure clearly anticipates the subject-matter of the present claims 1-7 (Art. 33(2) PCT).
- 2). For the assessment of the presently worded claims 8-15 on the question whether they are industrially applicable, no unified criteria exist in the PCT. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognise as industrially applicable claims to the use of a compound in a medical treatment, but will allow, claims to a compound for a first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- 1). With regard to the pages of the specification, it is submitted that with Applicant's response dated 23.6.92 only the drawings figures 1-8 and the amended pages 2, 4 and 5 of the specification had been filed. Page 1 (filed the 8th. of april 92) is in this context not consistent with page 2 (filed the 23rd. of june 92). The same applies to page 5 bridging with page 6.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

CA 9200123
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EPO FORM P0479

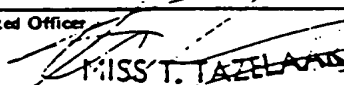
For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 92/00123

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all)*		
According to International Patent Classification (IPC) or to both National Classification and IPC Int.C1.5 A 61 K 31/13 A 61 K 31/135 A 61 K 31/275		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
Int.C1.5	A 61 K	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
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27-05-1992		26 JUN 1992 ¹⁴
International Searching Authority		Signature of Authorized Officer
EUROPEAN PATENT OFFICE		 MISS T. TAZELAAR

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